

# Appendix I

## Annual Operating Cost Estimate

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**BOW LAKE TRANSFER/RECYCLING STATION  
FULL OPERATIONS BEGINNING 2010  
OPERATION AND MAINTENANCE ESTIMATE SUMMARY**

I. LABOR	\$ 1,371,000
II. BUILDING AND SITE MAINTENANCE	\$ 221,000
III. EQUIPMENT OPERATING AND MAINTENANCE COSTS	\$ 204,000
IV. UTILITIES - BUILDING AND SITE	\$ 40,000
V. ROLLING STOCK FUEL COSTS	\$ 281,000
VI. INSURANCE	\$ 164,000
SUBTOTAL OPERATION & MAINTENANCE	\$ 2,281,000
CONTINGENCY (15%)	\$ 342,000
TOTAL ANNUAL OPERATION & MAINTENANCE COST	\$ 2,623,000
<b>ANNUAL UNIT COST FOR 500,000 TONS</b>	<b>\$5.25</b>

NOTE: All costs except unit cost rounded to nearest thousand dollars

**BOW LAKE TRANSFER/RECYCLING STATION, FULL OPERATIONS  
TRANSFER STATION  
OPERATIONS AND MAINTENANCE ESTIMATE**

I. LABOR

Job Classification	Personnel (1)	\$/hr(2)	hrs/year	Annual Cost	Total
Transfer Station Operators 7/10	8	40.29	1827	\$ 588,879	
Transfer Station Operators 1st Shift 5/8	2	35.25	2088	\$ 147,204	
Transfer Station Operators 2nd Shift 5/8	2	38.78	2088	\$ 161,945	
Transfer Station Operators 3rd Shift 5/8	2	40.54	2088	\$ 169,295	
Scale Operators 1st Shift 7/10	3.5	27.36	1827	\$ 174,954	
Scale Operators 2nd Shift 5/8	1	30.09	2088	\$ 62,828	
Scale Operators 3rd Shift 5/8	1	31.46	2088	\$ 65,688	
<b>Subtotal I</b>					<b>\$ 1,370,793</b>

Notes:

- (1) Full time equivalent staffing.
- (2) Includes 40% fringe benefits and shift premiums.

II. BUILDING AND SITE MAINTENANCE (0.5% of Capital excluding Mobile Equipment)					\$ 200,000
<b>Subtotal II</b>					<b>\$ 221,000</b>

III. EQUIPMENT OPERATING AND MAINTENANCE COSTS

Item	No. Veh.	Quantity (5)	Units	Unit Price	Annual Cost	Total
Front End Loader (1)	2	13000 hrs		\$6.00	\$ 78,000	
Yard Waste Compaction Crane (2)	2	4300 hrs		\$4.00	\$ 17,200	
Yard Tractor (3)	2	8700 hrs		\$5.00	\$ 43,500	
Compactor (4)	2	13000 hrs		\$5.00	\$ 65,000	
<b>Subtotal III</b>						<b>\$ 203,700</b>

Notes:

- (1) Assume one loader operates continuously during station operating hours and second loader operates half time
- (2) Assume cranes are operated 25% of station operating hours
- (3) Assume tractors are operated 50% of station operating hours
- (4) Assume one compactor operates continuously during station operating hours and second compactor operates half time
- (5) Total station operating hours per year are 8712 hours (363 days x 24 hours)

IV. UTILITIES - BUILDING AND SITE

Item	Quantity	Units	Unit Price	Annual Cost	Total
Electricity					
Customer Charge	12 Months		\$25.00	\$ 300	
Delivery Demand Charge	2000 kW-Mo		\$6.00	\$ 12,000	
Energy Charge	90000 kWh		\$0.07500	\$ 6,750	
Phones (Mobile and Fixes)	12 Months		\$100.00	\$ 1,200	
Surface Water Fee	12 Months		\$400.00	\$ 4,800	

Sewer	12 Months	\$500.00	\$	6,000
Water			\$	-
Base Meter Charge, 3" meter	360 Day	\$5.00	\$	1,800
Commodity Charge	200000 Cubic Foot	\$0.04	\$	7,000
<b>Subtotal IV</b>				\$ 39,850

V. ROLLING STOCK FUEL COSTS

Item	No. Units	Quantity	Unit	Unit Price	Annual Cost	Total
Front End - Loader	13000	4.5 gal/hour		\$3.50	\$ 204,750	
Yard Tractor	8700	2.5 gal/hour		\$3.50	\$ 76,125	
<b>Subtotal V</b>						\$ 280,875

VI. INSURANCE

Item	No. Units	Quantity	Unit	Unit Price	Annual Cost	Total
Workers Compensation (1)		13,708	\$100 payroll	\$12	\$164,495	
<b>Subtotal VI</b>						\$ 164,495

Notes:  
(1) abd Services estimate w/ no deductible

<b>Subtotal I through VI</b>						\$ 2,280,713
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